

We claim:

1. In an automotive vehicle having an engine throttle under the control of an electronic control module ("ECM"), the ECM including an ECM input adapted to be connected to the ECM, a method of forcing the throttle to idle comprising the steps of:

providing a vehicle disable system, said system including:

a throttle position sensor;

a throttle position signal line and an alternative signal line, both said lines capable of being connected to said ECM input, said throttle position signal line including a switch means to disconnect said throttle position signal line from said ECM input and connect said alternative signal line to said ECM input when said switch means is activated;

activating said switch means; and

transmitting an idling signal to the ECM on the ECM input to effect the idling of the throttle.

2. The method of claim 1 further comprising a step of providing an alternative throttle position signal source in communication with said alternative signal line.

3. The method of claim 1 wherein the step of transmitting includes a step of generating the idling signal.

4. The method of claim 3 wherein the step of generating an idling signal includes a step of utilizing an idle signal generator to generate the idling signal, said alternative signal line in communication with said idle signal generator.

5. The method of claim 1 wherein the step of activating includes a step of utilizing a control unit to transmit an activation signal to said switch means to activate said switch means.

6. In an automotive vehicle having an engine throttle under the control of an electronic control module (ECM), a vehicle disable system comprising:

a throttle position sensor having a driver input mechanism, said driver input mechanism indicating a state of the throttle varying between idle operation and non-idle operation, and generating a throttle position signal related to the state of said driver input mechanism;

an ECM input adapted to be connected to the ECM, said throttle position sensor providing said throttle position signal to the ECM on said ECM input; and

an override input that enables an idling signal to be transmitted to the ECM on said ECM input in lieu of said throttle position signal.

7. The vehicle disable system of claim 6 further comprising an idle validation switch coupled to the ECM and in communication with said driver input mechanism, said idle validation switch generating an idle validation signal related to the state of said driver input mechanism.

8. The vehicle disable system of claim 6 wherein said throttle position sensor includes a resistor and a wiper arm in contact with said resistor.

9. The vehicle disable system of claim 8 further comprising a throttle position signal line connected to said wiper arm and capable of connecting to said ECM input, and an alternative signal line also capable of connecting to said ECM input, said throttle position signal line including a first switch means to disconnect said throttle position signal line from said ECM input and to connect said alternative throttle position signal line to said ECM input when said first switch means is activated.

10. The vehicle disable system of claim 9 further comprising a voltage output adapted to be connected to the ECM, a voltage supply line connected to said resistor and capable of connecting to the voltage output, and an alternative voltage supply line also capable of connecting to the voltage output, said voltage supply line including second switch means to disconnect said voltage supply line from said voltage output and to connect said alternative voltage supply line to said voltage output when said override input is activated.

11. The vehicle disable system of claim 10 wherein said override input is in electronic communication with said first and second switch means.

12. The vehicle disable system of claim 11 further comprising a controller, said controller providing an activation signal to said first and second switch means on

said override input, said activation signal activating said first and second switch means.

13. The vehicle disable system of claim 10 further comprising an alternative resistor, said alternative voltage supply line in contact with said alternative resistor.

14. The vehicle disable system of claim 10 wherein at least one of said first and second switch means includes discrete analog circuitry.

15. The vehicle disable system of claim 10 wherein at least one of said first and second switch means includes digital circuitry.

16. The vehicle disable system of claim 10 wherein at least one of said first and second switch means includes a relay.

17. The vehicle disable system of claim 10 wherein at least one of said first and second switch means includes a microprocessor executing program instructions.

18. In an automotive vehicle having an engine throttle under the control of an electronic control module ("ECM"), and a driver input mechanism indicating a state of the throttle varying between idle and non-idle operation, a method of reducing the throttle, the method comprising the steps of:

receiving an input signal related to the state of the driver input mechanism, said input signal comprising one of an analog signal and a digital signal, said analog signal having a voltage and said digital signal having a duty cycle;

interpreting said input signal; and

at least one of degrading and disabling the throttle based on the interpretation of said input signal.

19. The method of claim 18 wherein said step of interpreting includes a step of determining whether the vehicle is in at least one of a first, a second and a third zone level.

20. The method of claim 19 wherein said step of determining includes a step of utilizing vehicle position information to determine whether the vehicle is in one of the first, second and third zone levels

21. The method of claim 19 wherein said step of determining includes a step of utilizing alarm information to determine whether the vehicle is in one of the first, second and third zone levels.

22. The method of claim 19 wherein said step of determining includes a step of utilizing biometric information to determine whether the vehicle is in one of the first, second and third zone levels.

23. The method of claim 19 wherein, if said input signal is digital, said step of interpreting includes a step of determining whether the input signal's duty cycle is greater than a predefined limit duty cycle.

24. The method of claim 19 wherein, if said input signal is digital and the vehicle is determined to be in the first zone level, said step of interpreting includes a step of transmitting said digital input signal to the ECM.

25. The method of claim 23 wherein, if said input signal is digital and the vehicle is determined to be in the second zone level, said step of interpreting includes a step of transmitting said digital input signal to the ECM until the signal's duty cycle is determined to be greater than the predefined limit duty cycle.

26. The method of claim 25 wherein said step of degrading includes a step of limiting the digital input signal's duty cycle to the predefined limit duty cycle if the signal's duty cycle is determined to be greater than the predefined limit duty cycle.

27. The method of claim 19 wherein if said input signal is digital and the vehicle is determined to be in the third zone level, said step of disabling includes steps of generating an idling signal and transmitting said idling signal to the ECM.

28. The method of claim 19 wherein, if said input signal is analog, said step of interpreting includes a step of determining whether said analog input signal's voltage is greater than a predefined limit voltage.

29. The method of claim 19 wherein, if said input signal is an analog signal and the vehicle is determined to be in the first zone level, said step of interpreting includes a step of transmitting said analog throttle position signal to the ECM.

30. The method of claim 28 wherein, if said input signal is analog and the vehicle is determined to be in the second zone level, said step of interpreting includes a step of transmitting said analog input signal to the ECM until the input signal's voltage is determined to be greater than the predefined limit voltage.

31. The method of claim 28 wherein, if said analog input signal is determined to be greater than the predefined limit voltage, said step of degrading includes steps of generating a limiting voltage equal to the predefined limit voltage and transmitting said limiting voltage to the ECM.

32. The method of claim 19 wherein, if said input signal is analog and the vehicle is determined to be in the third zone level, said step of disabling includes steps of generating an idling voltage signal and transmitting said idling voltage signal to the ECM.

33. In an automotive vehicle having an engine throttle under the control of an electronic control module (ECM), a controller comprising:

a processor; and

memory readable by said processor and storing program instructions executable by said processor to perform method steps, said method steps comprising:

receiving an input signal related to the state of a driver input mechanism, said input signal comprising one of an analog signal and a digital signal, said analog signal having a voltage and said digital signal having a duty cycle;

interpreting said input signal; and

at least one of degrading and disabling the throttle based on the interpretation of said input signal.

34. The controller of claim 33 wherein said program instructions include said step of interpreting including a step of determining whether the vehicle is in at least one of a first, a second and a third zone level

35. The controller of claim 34 wherein said program instructions include said step of determining including a step of utilizing vehicle position information to determine whether the vehicle is in one of the first, second and third zone levels.

36. The controller of claim 34 wherein said program instructions include said step of determining including a step of utilizing alarm information to determine whether the vehicle is in one of the first, second and third zone levels.



37. The controller of claim 34 wherein said program instructions include said step of determining including a step of utilizing biometric information to determine whether the vehicle is in one of the first, second and third zone levels.

38. The controller of claim 34 wherein said program instructions include, if said input signal is digital, said step of interpreting including a step of determining whether said input signal's duty cycle is greater than a predefined duty cycle.

39. The controller of claim 34 wherein said program instructions include, if said input signal is digital and the vehicle is determined to be in the first zone level, said step of interpreting including a step of transmitting said digital input signal to the ECM.

40. The controller of claim 38 wherein said program instructions include, if said input signal is digital and the vehicle is determined to be in the second zone level, said step of interpreting including a step of transmitting said digital input signal to the ECM until the signal's duty cycle is determined to be greater than the predefined limit duty cycle.

41. The controller of claim 40 wherein said program instructions include, if said digital input signal's duty cycle is determined to be greater than the predefined limit duty cycle, said step of degrading including a step of limiting the digital input signal's duty cycle to the predefined limit duty cycle.

42. The controller of claim 34 wherein said program instructions include, if said input signal is digital and the vehicle is determined to be in the third zone level, said step of disabling including steps of generating an idling signal and transmitting said idling signal to the ECM.

43. The controller of claim 34 wherein said program instructions include, if said input signal is analog, said step of interpreting including a step of determining whether said analog input signal's voltage is greater than a predefined limit voltage.

44. The controller of claim 34 wherein said program instructions include, if said input signal is an analog signal and the vehicle is determined to be in the first zone level, said step of interpreting including a step of transmitting said analog throttle position signal to the ECM.

45. The controller of claim 43 wherein said program instructions include, if said input signal is analog and the vehicle is determined to be in the second zone level, said step of interpreting including a step of transmitting said analog input signal to the ECM until the input signal's voltage is determined to be greater than the predefined limit voltage.

46. The method of claim 45 wherein said program instructions include, if said analog input signal is determined to be greater than the predefined limit voltage, said step of degrading including steps of generating a limiting voltage equal to the predefined limit voltage and transmitting said limiting voltage to the ECM.

47. The method of claim 34 wherein said program instructions include, if said input signal is analog and the vehicle is determined to be in the third zone level, said step of disabling including steps of generating an idling voltage signal and transmitting said idling voltage signal to the ECM.